US009408532B2

(12) **United States Patent**
Makihira

(10) **Patent No.: US 9,408,532 B2**
(45) **Date of Patent: Aug. 9, 2016**

(54) **IMAGE PROCESSING APPARATUS AND IMAGE PROCESSING METHOD**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 36 days.

(21) Appl. No.: **13/780,094**

(22) Filed: **Feb. 28, 2013**

(65) **Prior Publication Data**

US 2013/0235342 A1 Sep. 12, 2013

(30) **Foreign Application Priority Data**

Mar. 8, 2012 (JP) 2012-051449

(51) **Int. Cl.**
A61B 3/00 (2006.01)
A61B 3/14 (2006.01)
(Continued)

(52) **U.S. Cl.**
CPC ***A61B 3/0058*** (2013.01); ***A61B 3/0041*** (2013.01); ***A61B 3/10*** (2013.01);
(Continued)

(58) **Field of Classification Search**
CPC A61B 3/14; A61B 3/102; A61B 3/0066; A61B 3/1233; A61B 3/113; A61B 3/12; A61B 3/152; A61B 5/0066; G06T 2207/30041; G06T 2207/10101; G06T 7/0012; G06T 7/0024; G06T 7/0026; G06T 7/0028; G06T 7/003; G06T 7/0034; G06T 7/0036; G06T 7/0038; G06K 2209/05; G01B 9/02044; G01B 9/02068; G01B 9/02091
USPC 351/219, 221, 246, 206, 208; 356/479; 382/128, 130, 131, 173; 600/407, 425; 359/450, 497; 348/78
See application file for complete search history.

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(57) **ABSTRACT**

In an image processing apparatus that irradiates an object to be inspected with measuring light and synthesizing a plurality of tomographic images acquired on the basis of reflected light to form a new tomographic image in order to reduce speckles in the image and enhance the image quality of the resultant composed image in imaging using optical coherence tomography, the image processing apparatus is provided with an image acquiring unit that acquires a plurality of tomographic images of an object to be inspected and a selection unit that selects tomographic images to be composed from among the plurality of tomographic images on the basis of similarity information about the plurality of tomographic images.

30 Claims, 8 Drawing Sheets